

WHAT IS CLAIMED IS:

1. A host board system comprising  
a host board at least partially positioned within a housing having a set of openings, the host board including a set of connectors;  
each opening in the set of openings being aligned with at least two connectors from the set of connectors;  
said each opening configured to accept two modules of a first form factor so that each module of the first form factor is electrically coupled to one of the at least two connectors;  
and  
said each opening further configured to accept a single module of a second form factor so that the single module of the second form factor is electrically coupled to a first connector of the at least two connectors.
2. The host board system of claim 1, wherein  
the single module of the second form factor prevents electrical coupling with a second connector of the at least two connectors by another module.
3. The host board system of claim 1, wherein  
the single module of the second form factor is mechanically coupled to the second connector of the at least two connectors.
4. The host board system of claim 1, further comprising  
a set of inserts, each insert from said set of inserts configured to plug at least a portion of an opening from the set of openings.
5. The host board system of claim 4, wherein  
a first insert from the set of inserts configured to plug only the portion of the opening is further configured to accommodate one module of the first form factor.
6. The host board system of claim 4, wherein  
a second insert from the set of inserts configured to plug only the portion of the

opening is further configured to accommodate two modules of the first form factor.

7. The host board system of claim 4, wherein  
a third insert from the set of inserts configured to plug only the portion of the opening  
is further configured to accommodate one module of the second form factor.
8. The host board system of claim 4, wherein  
a fourth insert from the set of inserts configured to completely plug the opening and  
prevent insertion of any modules.
9. The host board system of claim 4, wherein  
each module of the first form factor and each module of the second form factor  
includes a flange, said flange extending around a perimeter of a respective module and  
abutting an insert from the set of inserts when said respective module is electrically coupled  
to a connector from said set of connectors.
10. The host board system of claim 1, wherein  
the housing comprises in part a bezel, the set of openings being distributed across said  
bezel.
11. The host board system of claim 10, wherein  
the bezel is fastened to the host board.
12. The host board system of claim 1, further comprising  
a set of slots on the host board, each slot from the set of slots corresponding to a  
connector from the set of connectors and configured to maintain an electric coupling between  
a module and a connector from the set of connectors;  
said each slot configured to accommodate a guide rail included on modules of the first  
form factor, said modules of the first form factor having a single guide rail; and  
adjacent slots from the set of slots configured to accommodate a pair of guide rails  
included on modules of the second form factor, said modules of the second form factor  
having a single pair of guide rails.

13. The host board system of claim 12, wherein  
said each slot includes a means for securing a guide rail included on a module within  
said each slot.
14. A host board system comprising  
a host board at least partially positioned within a housing having a set of openings, the  
host board including a set of connectors;  
each opening from the set of openings being aligned with a plurality of connectors  
from the set of connectors;  
said each opening from the set of openings configured to simultaneously  
accommodate one or more of a plurality of modules, said plurality of modules including  
modules with a first form factor and modules with a second form factor;  
the modules with the first form factor each electrically interfacing a respective  
connector of said plurality of connectors aligned with a respective opening from the set of  
openings; and  
the modules with the second form factor each electrically interfacing a respective first  
connector from said plurality of connectors aligned with the respective opening from the set  
of openings.
15. The host board system of claim 14, wherein  
the modules with the second form factor mechanically interface a second connector  
from said plurality of connectors aligned with the respective opening from the set of  
openings.
16. The host board system of claim 14, further comprising  
a set of inserts, each insert from said set of inserts configured to plug at least a portion  
of an opening from the set of openings.
17. The host board system of claim 16, wherein  
a first insert from the set of inserts configured to plug only the portion of the opening  
is further configured to accommodate one module with the first form factor.

18. The host board system of claim 16, wherein  
a second insert from the set of inserts configured to plug only the portion of the opening is further configured to accommodate two modules with the first form factor.
19. The host board system of claim 16, wherein  
a third insert from the set of inserts configured to plug only the portion of the opening is further configured to accommodate one module with the second form factor.
20. The host board system of claim 16, wherein  
a fourth insert from the set of inserts configured to completely plug the opening and prevent insertion of any modules.
21. The host board system of claim 16, wherein  
each module with the first form factor and each module with the second form factor includes a flange, said flange extending around a perimeter of a respective module and abutting an insert from the set of inserts when said respective module is electrically coupled to a connector from said set of connectors.
22. The host board system of claim 14, wherein  
the housing comprises in part a bezel, the set of openings being distributed across said bezel.
23. The host board system of claim 22, wherein  
the bezel is fastened to the host board.
24. The host board system of claim 14, further comprising  
a set of slots on the host board, each slot from the set of slots corresponding to a connector from the set of connectors and configured to maintain an electric coupling between a module and a connector from the set of connectors;  
said each slot configured to accommodate a guide rail included on modules with the first form factor, said modules with the first form factor having a single guide rail; and

adjacent slots from the set of slots configured to accommodate a pair of guide rails included on modules with the second form factor, said modules with the second form factor having a single pair of guide rails.

25. The host board system of claim 24, wherein  
said each slot includes a means for securing a guide rail included on a module within said each slot.
26. A host board system comprising  
a host board, said host board including a set of connectors mounted on said host board and a set of slots;  
each slot from the set of slots open to an edge of the host board;  
the set of connectors positioned with respect to the set of slots such that a module with a first form factor slidably engages with a slot from the set of slots so as to electrically couple with a corresponding connector from the set of connectors; and  
the set of connectors also positioned with respect to the set of slots such that a module with a second form factor simultaneously slides into adjacent slots so as to electrically couple with a first corresponding connector from the set of connectors.
27. The host board system of claim 26, wherein  
the module with the second form factor when slidably engaged with adjacent slots mechanically couples with a second corresponding connector from the set of connectors.
28. The host board system of claim 26, wherein  
the set of connectors are evenly spaced apart so that each connector from the set of connectors can simultaneously accommodate a modules with the first form factor.
29. The host board system of claim 26, wherein  
the set of slots are evenly spaced apart so that each slot from the set of slots can simultaneously accommodate a modules with the first form factor.
30. The host board system of claim 26, wherein

said each slot from the set of slots has a central axis along which a module travels while when slidingly engaged with a slot from the set of slots, said central axis superposes a central axis of a corresponding connector.

31. The host board system of claim 26, wherein the module with the first form factor comprises a single width transceiver.
32. The host board system of claim 26, wherein the module with the second form factor comprises a double width transceiver.
33. The host board system of claim 26, wherein each module includes a guide rail, said each slot from the set of slots being sized to accommodate the guide rail such that said guide rail is the portion of a module slidingly engaged with and in contact with a respective slot.
34. The host board system of claim 33, wherein said each slot includes a means for securing the guide rail included within said each slot.
35. The host board system of claim 26, further comprising a rigid body of uniform thickness, a surface of said rigid body abutting the edge of the host board; and the surface including an array of openings, each opening from the array of openings sized to accommodate one or more modules.
36. The host board system of claim 35, further comprising an insert configured to cover an opening from the array of openings, said insert forming a seal with said rigid body when said insert is inserted into said opening from the array of openings.
37. The host board system of claim 35, further comprising an insert configured to cover a portion of an opening from the array of openings, said

insert forming a seal with said rigid body when said insert is inserted into said opening from the array of openings.

38. The host board system of claim 37, wherein

the insert is further configured to accommodate a single module with the first form factor, said insert and said module with the first form factor forming a seal when said module with the first form factor is electrically coupled with a corresponding connector from the set of connectors.

39. The host board system of claim 37, wherein

the insert is further configured to accommodate two modules with the first form factor, said insert and said modules with the first form factor forming two seals when said modules with the first form factor are electrically coupled with corresponding connectors from the set of connectors.

40. The host board system of claim 37, wherein

the insert is further configured to accommodate a single module with the second form factor, said insert and said module with the second form factor forming a seal when said module with the second form factor is electrically coupled with a corresponding connector from the set of connectors.

41. The host board system of claim 37, wherein

said rigid body is fastened to said host board.

42. A host board system comprising

a host board, said host board including a set of connectors mounted on said host board and a set of slots;

each slot from the set of slots located along an edge of the host board such that said each slot is open to said edge;

the set of connectors positioned with respect to the set of slots such that each slot can separately accommodate a module with a first form factor engaging a corresponding connector from said set of connectors and a module with a second form factor engaging one

or more corresponding connectors from said set of connectors; and

the set of slots spaced such that each slot from the set of slots can simultaneously accommodate a module with the first form factor.

43. The host board system of claim 42, wherein the module with the second form factor electrically couples with a first connector from said one or more corresponding connectors.
44. The host board system of claim 43, wherein the module with the second form factor mechanically couples with a second connector from said one or more corresponding connectors.
45. The host board system of claim 42, wherein the module with the first form factor electrically couples with the connector.
46. The host board system of claim 42, wherein the module with the first form factor comprises a single width transceiver.
47. The host board system of claim 42, wherein the module with the second form factor comprises a double width transceiver.
48. The host board system of claim 42, wherein each module includes a guide rail, said each slot from the set of slots being sized to accommodate the guide rail such that said guide rail is the portion of a module slidably engaged with and in contact with a respective slot.
49. The host board system of claim 48, wherein said each slot includes a means for securing the guide rail included within said each slot.
50. The host board system of claim 42, further comprising a rigid body of uniform thickness, a surface of said rigid body abutting the edge of the



host board; and

the surface including an array of openings, each opening from the array of openings sized to accommodate one or more modules.

51. The host board system of claim 50, further comprising

an insert configured to cover an opening from the array of openings, said insert forming a seal with said rigid body when said insert is inserted into said opening from the array of openings.

52. The host board system of claim 50, further comprising

an insert configured to cover a portion of an opening from the array of openings, said insert forming a seal with said rigid body when said insert is inserted into said opening from the array of openings.

53. The host board system of claim 52, wherein

the insert is further configured to accommodate a single module with the first form factor, said insert and said module with the first form factor forming a seal when said module with the first form factor engage a corresponding connector from the set of connectors.

54. The host board system of claim 52, wherein

the insert is further configured to accommodate two modules with the first form factor, said insert and said modules with the first form factor forming two seals when said modules with the first form factor engage corresponding connectors from the set of connectors.

55. The host board system of claim 52, wherein

the insert is further configured to accommodate a single module with the second form factor, said insert and said module with the second form factor forming a seal when said module with the second form factor engage a corresponding connector from the set of connectors.

56. The host board system of claim 50, wherein

said rigid body is fastened to said host board.

57. The host board system of claim 42, wherein  
the module with the second form factor occupies two slots from the set of slots while  
engaging one or more corresponding connectors from said set of connectors.

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